



U.S. Department of Energy

## *Environmental Management Program Update*



Presented to the

### *Transportation External Coordination Working Group*

February 6, 2008



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Office of Environmental Management



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safety ❖ performance ❖ cleanup ❖ closure

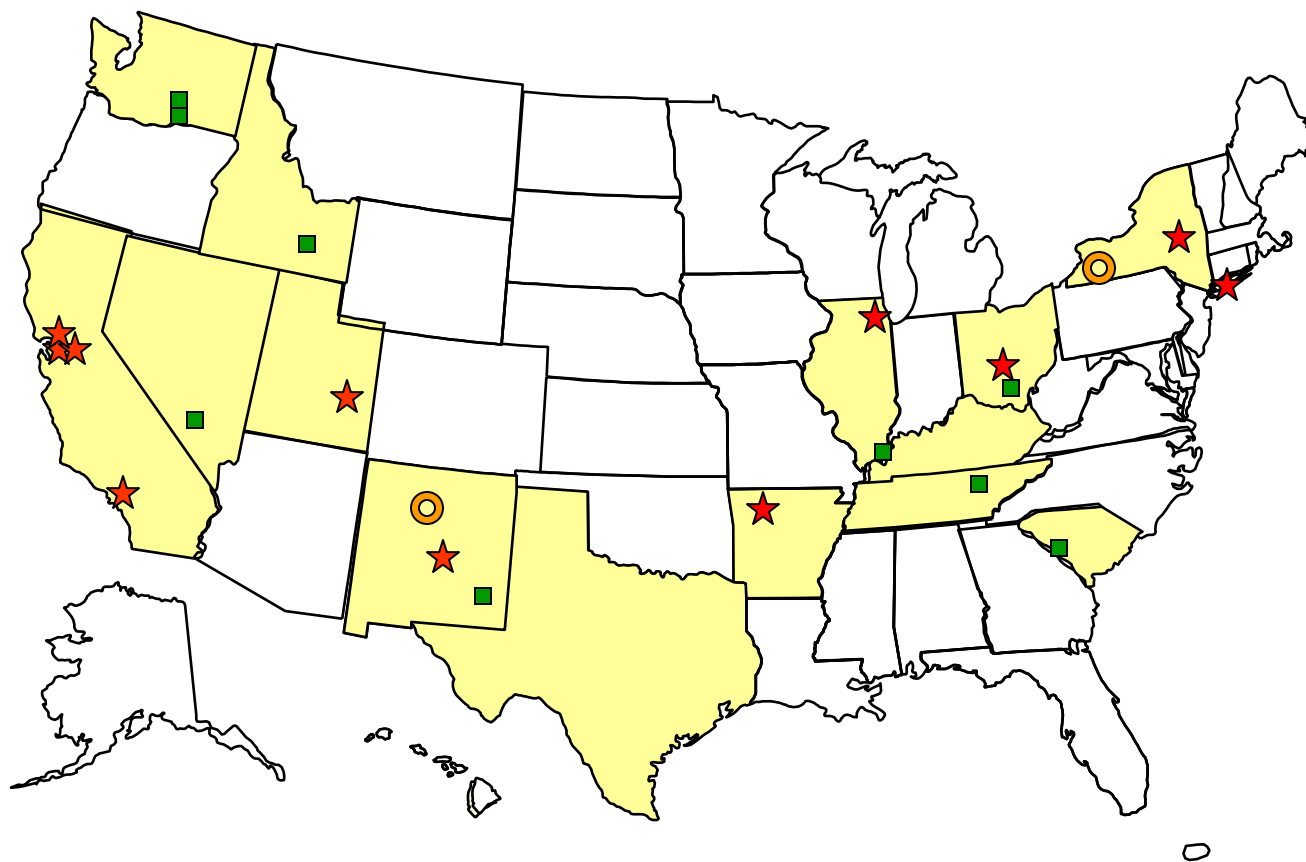
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# *There's a New EM Transportation Organization*

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- Combines all packaging and transportation functions in a single office
  - Office of Transportation
  - Packaging and Certification Program
- Reorganization will be transparent
- Underlying principles and philosophy remains
  - Packaging and transport critical to mission success
  - Safety is in the package
- Packaging certifying official remains at the Deputy Assistant Secretary level

# Cleanup is ongoing . . . . .24 more sites to go!



## ★ Completion by 2013

- Lawrence Berkeley Nat'l Lab
- Inhalation Toxicology Lab
- Brookhaven National Lab
- Stanford Linear Accelerator Ctr
- Mound OU1
- Moab
- Southwest Experimental Fast Oxide Reactor (SEFOR)
- Argonne National Lab (East)
- Separations Process Research Unit (SPRU)
- General Electric - Vallecitos Nuclear Center
- Energy Technology Engineering Center
- Sandia National Laboratories
- Pantex Plant

## ○ Completion by 2018

- West Valley
- Los Alamos National Lab

## ■ Post 2018 Completion

- Richland
- Office of River Protection
- Idaho National Laboratory
- Paducah
- Portsmouth
- Oak Ridge
- Savannah River Site
- Nevada Test Site
- WIPP



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## Shipment Numbers Are Decreasing

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### FY06 Shipments

•TRU	1,150
•LLW	14,600 <sup>1</sup>
•MLLW	750
•DUF <sub>6</sub>	400
•Other	<u>500<sup>2</sup></u>
<b>Total</b>	<b>17,400</b>

### FY07 Shipments

•TRU	1,020
•LLW	5,600 <sup>1</sup>
•MLLW	550
•DUF <sub>6</sub>	130
•Other	<u>500<sup>2</sup></u>
<b>Total</b>	<b>7,800</b>

### FY08 Shipments <sup>3</sup>

•TRU	234
•LLW	1,500 <sup>1</sup>
•MLLW	200
•Other	<u>6</u>
<b>Total</b>	<b>1,940</b>

<sup>1</sup> Shipment definition revised to reflect:: 1 railcar = 1 shipment

<sup>2</sup> “Other” includes non-rad HAZMAT

<sup>3</sup> 1<sup>st</sup> Quarter FY-08



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# West Valley Demonstration Project – Drum Cell

- Above-ground facility constructed in 1986 to store drums of cemented LLW -- ~20,000 drums
- First to NTS – 8/2006
  - 1,524 drums shipped via truck in 2006
- In 2007, WVDP used truck and rail shipments.
  - 18,500 drums were removed from the Drum Cell



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# *EM Shipments Underway or Planned*

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- FFTF spent fuel from Hanford to Idaho
  - Completed 6, 5 remaining
- Depleted Uranium Oxide (DUO) at SRS
  - 25,000 drums
  - Shipped by rail for disposal at EnergySolutions in FY 2009
- Spent nuclear fuel transfer between Idaho and Savannah River
  - About 30 shipments per year
  - May begin in late CY 2009
- Uranium oxide from Portsmouth and Paducah
  - Product of converting DUF-6
  - Shipments to NTS in 2009 (maybe)



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# *Foreign Research Reactor Program*

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- Planning underway for late Summer 2008 cross-country shipment
- Shipment arriving from Romania
- Two casks will travel to ID – using the NAC-LWT cask
- Transportation Plan will be out for review later this month (Feb. 2008)



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# *FRR (contd).*

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- Completed: 41 shipments
  - 32 shipments to SRS
  - 7 shipments to INL
  - 2 shipments to Y-12
- Transported: 219 casks
  - 189 casks to SRS
  - 17 casks to INL
  - 13 casks to Y-12
- Received: 8078 Total assemblies or elements:
  - 6,685 MTR spent fuel assemblies at SRS
  - 1,358 TRIGA spent fuel elements at INL
  - 35 MTR fuel assemblies at Y-12



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## *Event Notification and Reporting Criteria*

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- Began working on the criteria last year
- Major focus was shifted to notification – not just reporting after the event
- Criteria will be based on Section 13, Emergency Notification, of DOE M 460.2-1
- Criteria is only for EM offsite shipments
- Reporting will continue at meetings of the Regional Groups & TEC/WG



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# *EM Offsite Transportation Events - 2008*

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- 10-19-07: Mound railcar arrives at Energy Solutions without fiberglass lid (nonregulated)
- 12-06-07: Empty TRU shipment to INL struck in Utah by private vehicle. Repairs required to tractor/trailer for CVSA Level VI inspection
- 01-04-08: Mound rail car arrived at Energy Solutions without fiberglass lid (nonregulated)
- 01-08-08: BNL to Energy Solutions. Two gondola railcars had damaged outer tarps and one tarp was completely missing (nonregulated)
- 01-17-08: PORTS shipment to NTS, mechanical problems in Searchlight, NV.

# EM Shipment Safety Metrics

	FY04	FY05	FY06	FY07
<b>EM HAZMAT SHIPMENTS</b>				
<b># of Shipments</b>	<b>22,931</b>	<b>24,393</b>	<b>17,393</b>	<b>7,802</b>
<b>Mileage Traveled</b>	<b>20,092,398</b>	<b>20,323,812</b>	<b>18,269,727</b>	<b>6,274,995</b>
<b>EM 49CFR171.15(b) Reportable Rate (# per Million Mile)</b>	<b>0.15</b>	<b>0.15</b>	<b>0.16</b>	<b>0.16</b>
<b>RESPONSIBLE CARE PARTNERS HAZMAT SHIPMENTS</b>				
<b>Mileage Traveled</b>	<b>3,000,000,000</b>	<b>3,000,000,000</b>	<b>3,000,000,000</b>	<b>3,000,000,000</b>
<b>Responsible Care Partners 49CFR171.16 Reportable Rate Average (2005/2006) (# per Million Mile)</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>	<b>0.50</b>



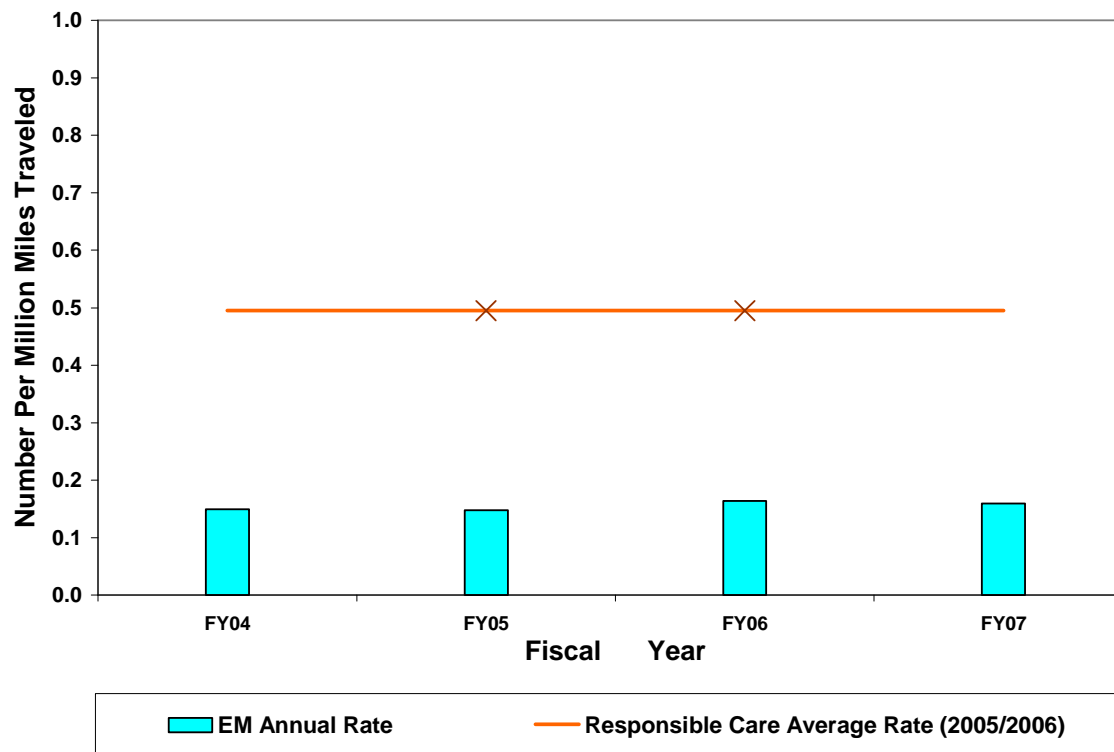
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# EM Transportation Safety Metrics

EM HAZMAT Shipment 49CFR171.15(b) Reportable Rate Comparison



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# *New ANSI Standard -- N14.36*

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- Measurement of Package and Conveyance Radiation Levels and Surface Contamination
  - Standardize the process to address consistent, reliable, and reproducible measurement of radiation level and surface contamination on and near radioactive material packages and conveyances on a graded approach
  - Will be based upon a review of existing operating and administrative procedures, methods, instruments, and processes used in the industry and government.
- 21-member writing group
  - Representatives from industry, nongovernmental organizations, regulatory and government agencies (Federal and states) including a DOE laboratory, field office, and the Office of Worker Safety and Health Policy
- Collecting radiation survey measurement protocols and procedures for standard type packages

# DOE Manual 460.2-1

- All issues have been resolved
- Manual is being processed through signature chain
- March-April 2008 issuance



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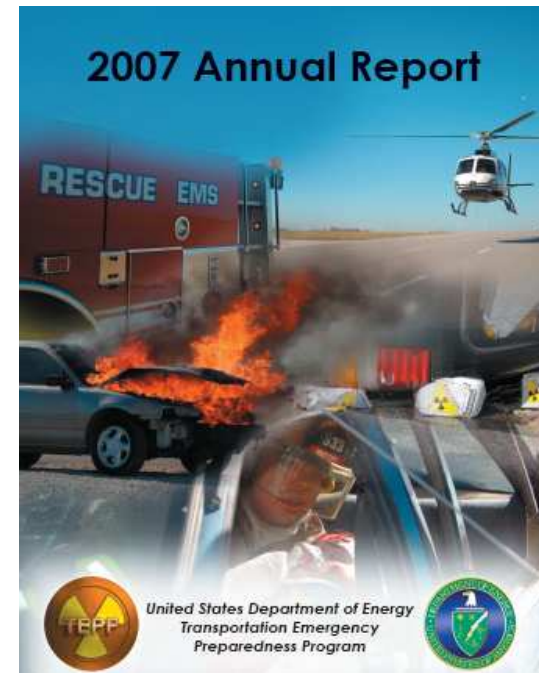
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# TEPP . . .

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- Copies of the Annual Report are on the back table
- Focus in FY 2008 will continue to be training, with a heavy emphasis on exercises
- Continuing to partner with DHS/FEMA on training issues



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